FRET PROTEASE ASSAYS FOR CLOSTRIDIAL TOXINS ABSTRACT OF THE INVENTION

The present invention provides clostridial

toxin substrates useful in assaying for the protease activity of any clostridial toxin, including botulinum toxins of all serotypes as well as tetanus toxins. A clostridial toxin substrate of the invention contains a donor fluorophore; an acceptor having an absorbance

spectrum overlapping the emission spectrum of the donor fluorophore; and a clostridial toxin recognition sequence that includes a cleavage site, where the cleavage site intervenes between the donor fluorophore and the acceptor and where, under the appropriate conditions, resonance

energy transfer is exhibited between the donor fluorophore and the acceptor.